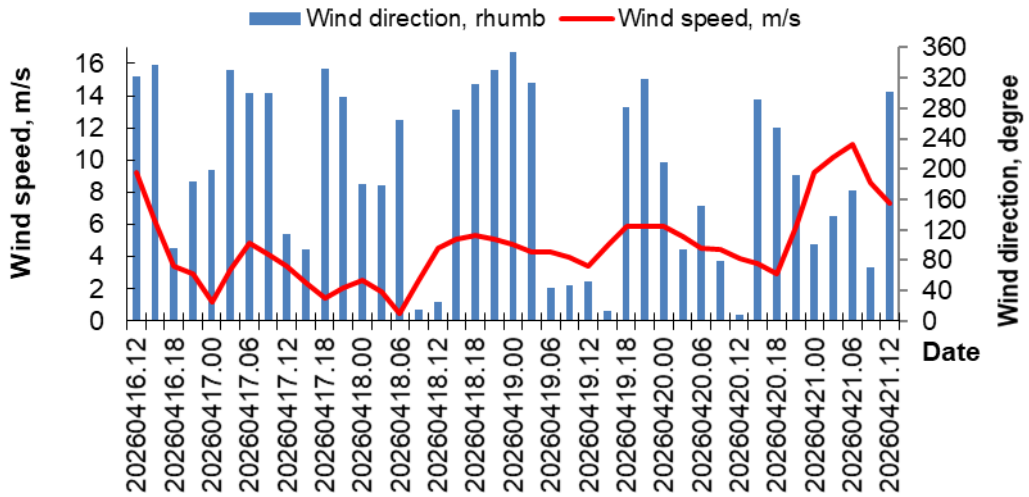




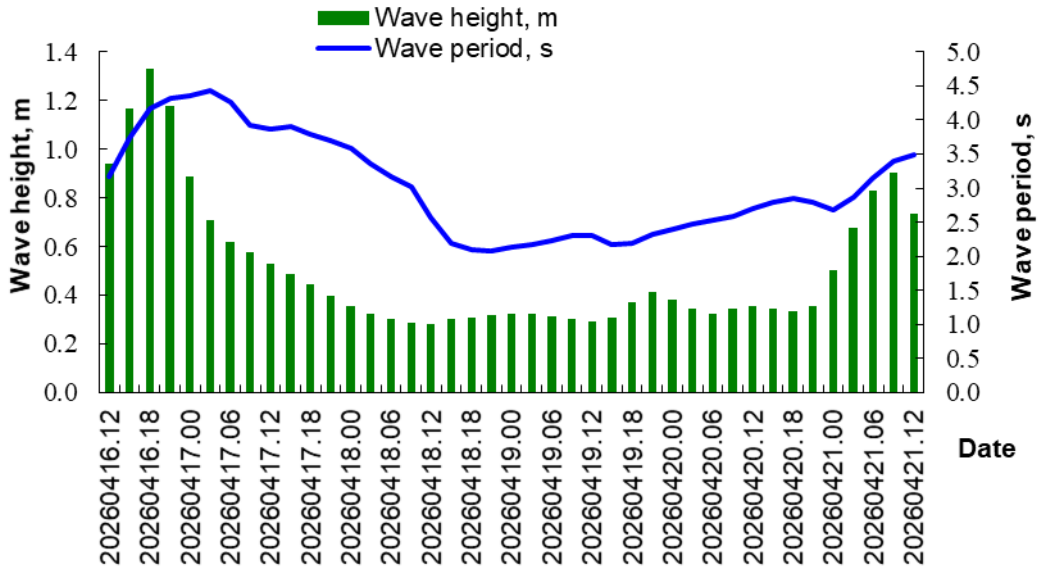
**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

**Wave and wind forecast for the Kazakhstan part of the Caspian Sea with a 5-day advance
using SWAN spectral model for the period April 16 – 21, 2026 .**

Wind condition in the Kulaly

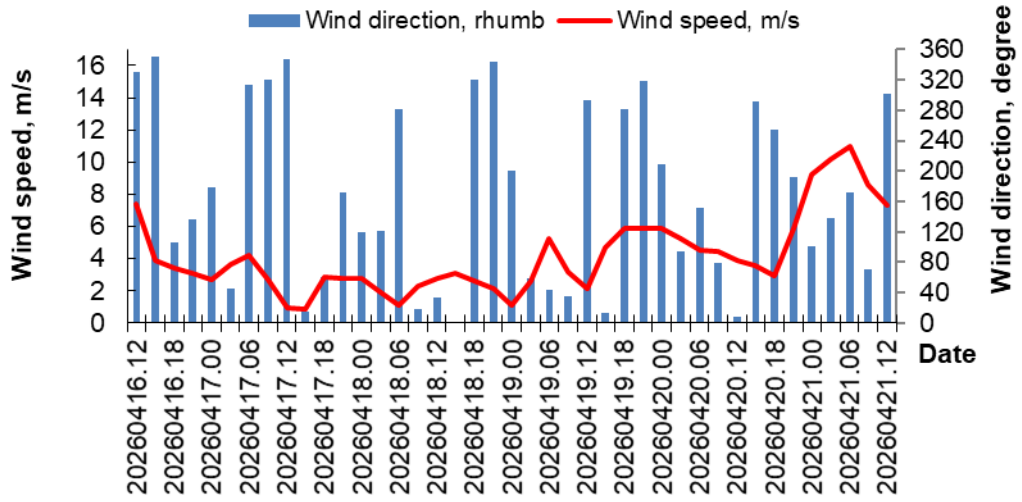


Wave condition in the Kulaly

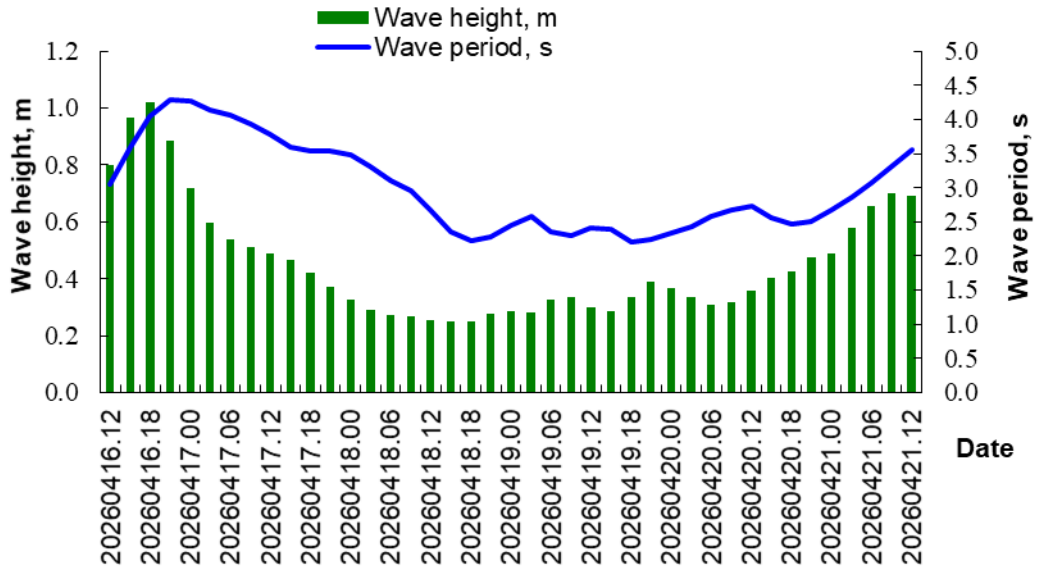


Date time	Kulaly				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20260416.12	0.94	SE	3.2	9	NW
20260416.15	1.17	SE	3.7	6	NW
20260416.18	1.33	SE	4.2	3	E
20260416.21	1.18	SE	4.3	3	S
20260417.00	0.89	SE	4.4	1	S
20260417.03	0.71	S	4.4	3	NW
20260417.06	0.62	S	4.3	5	NW
20260417.09	0.58	S	3.9	4	NW
20260417.12	0.53	S	3.9	3	SE
20260417.15	0.49	S	3.9	2	E
20260417.18	0.44	S	3.8	1	NW
20260417.21	0.40	S	3.7	2	NW
20260418.00	0.35	S	3.6	3	S
20260418.03	0.32	SE	3.4	2	S
20260418.06	0.30	SE	3.2	0	W
20260418.09	0.28	E	3.0	3	N
20260418.12	0.28	NE	2.6	5	NE
20260418.15	0.30	NE	2.2	5	W
20260418.18	0.31	E	2.1	5	NW
20260418.21	0.32	E	2.1	5	NW
20260419.00	0.33	SE	2.1	5	N
20260419.03	0.32	SE	2.2	4	NW
20260419.06	0.31	E	2.2	4	NE
20260419.09	0.30	E	2.3	4	NE
20260419.12	0.29	E	2.3	3	NE
20260419.15	0.31	E	2.2	5	N
20260419.18	0.37	E	2.2	6	W
20260419.21	0.41	E	2.3	6	NW
20260420.00	0.38	SE	2.4	6	SW
20260420.03	0.34	SE	2.5	5	E
20260420.06	0.32	S	2.5	5	SE
20260420.09	0.35	N	2.6	4	E
20260420.12	0.36	N	2.7	4	N
20260420.15	0.34	N	2.8	4	W
20260420.18	0.33	NE	2.9	3	W
20260420.21	0.35	NE	2.8	6	S
20260421.00	0.50	W	2.7	9	E
20260421.03	0.67	W	2.9	10	SE
20260421.06	0.83	NW	3.1	11	S
20260421.09	0.90	NW	3.4	9	E
20260421.12	0.74	NW	3.5	7	NW

Wind condition in the Fort-Shevchenko

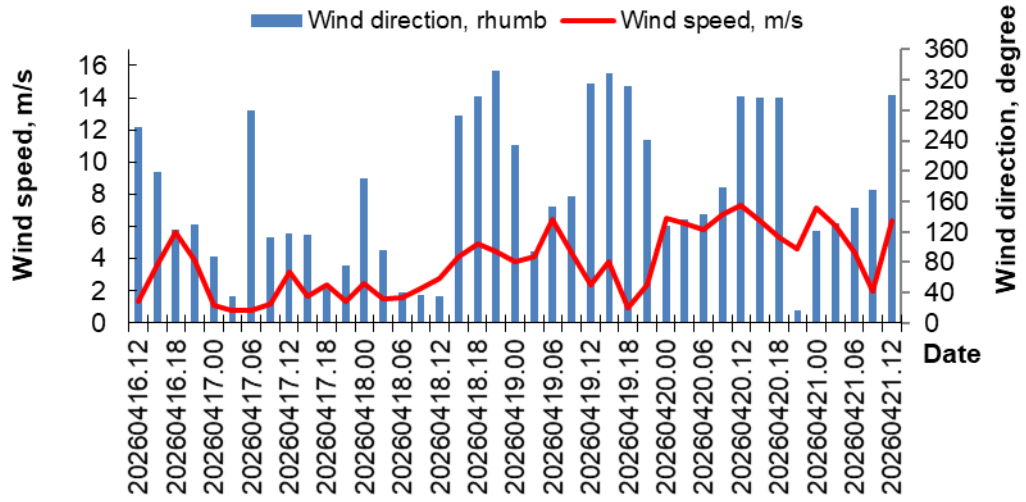


Wave condition in the Fort-Shevchenko

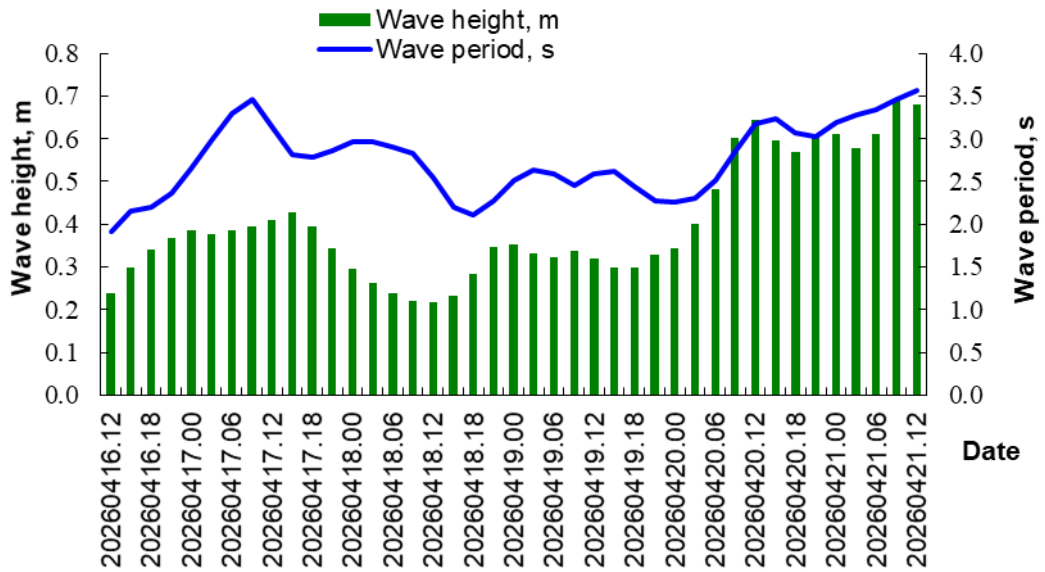


Date time	Fort-Shevchenko				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20260416.12	0.80	SE	3.1	7	NW
20260416.15	0.97	SE	3.6	4	N
20260416.18	1.02	SE	4.0	3	E
20260416.21	0.89	S	4.3	3	SE
20260417.00	0.72	S	4.3	3	S
20260417.03	0.60	S	4.1	4	NE
20260417.06	0.54	S	4.1	4	NW
20260417.09	0.51	S	3.9	3	NW
20260417.12	0.49	S	3.8	1	N
20260417.15	0.47	S	3.6	1	N
20260417.18	0.42	S	3.5	3	NE
20260417.21	0.37	S	3.5	3	S
20260418.00	0.33	S	3.5	3	SE
20260418.03	0.29	S	3.3	2	SE
20260418.06	0.27	SE	3.1	1	W
20260418.09	0.27	NE	3.0	2	N
20260418.12	0.26	NE	2.7	3	NE
20260418.15	0.25	NE	2.4	3	N
20260418.18	0.25	NE	2.2	3	NW
20260418.21	0.28	E	2.3	2	N
20260419.00	0.29	E	2.4	1	S
20260419.03	0.28	E	2.6	3	NE
20260419.06	0.33	E	2.4	5	NE
20260419.09	0.34	NE	2.3	3	NE
20260419.12	0.30	NE	2.4	2	W
20260419.15	0.29	E	2.4	5	N
20260419.18	0.34	E	2.2	6	W
20260419.21	0.39	SE	2.2	6	NW
20260420.00	0.37	SE	2.3	6	SW
20260420.03	0.33	S	2.4	5	E
20260420.06	0.31	S	2.6	5	SE
20260420.09	0.32	N	2.7	4	E
20260420.12	0.36	N	2.7	4	N
20260420.15	0.40	NE	2.6	4	W
20260420.18	0.43	E	2.5	3	W
20260420.21	0.48	E	2.5	6	S
20260421.00	0.49	NE	2.7	9	E
20260421.03	0.58	NW	2.9	10	SE
20260421.06	0.66	NW	3.1	11	S
20260421.09	0.70	NW	3.3	9	E
20260421.12	0.69	NW	3.6	7	NW

Wind condition in the Aktau

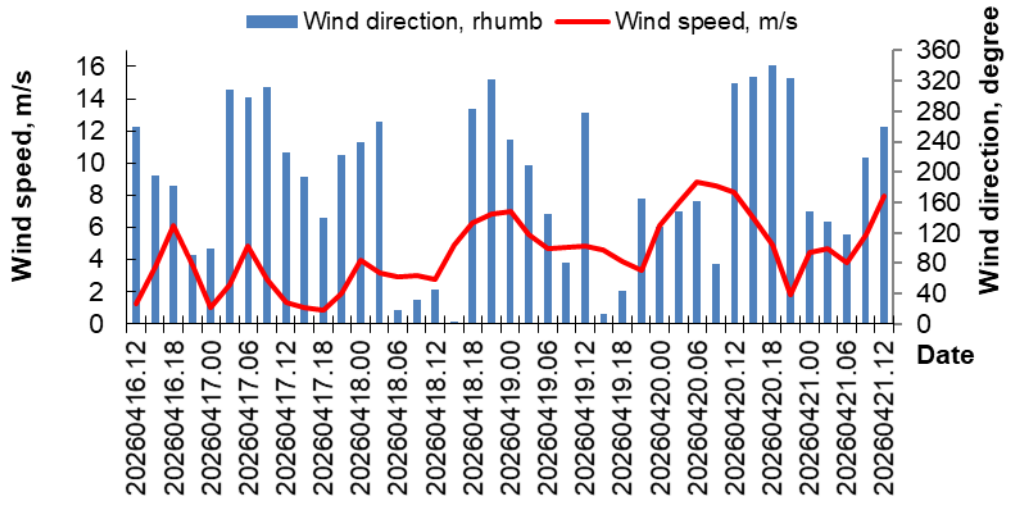


Wave condition in the Aktau

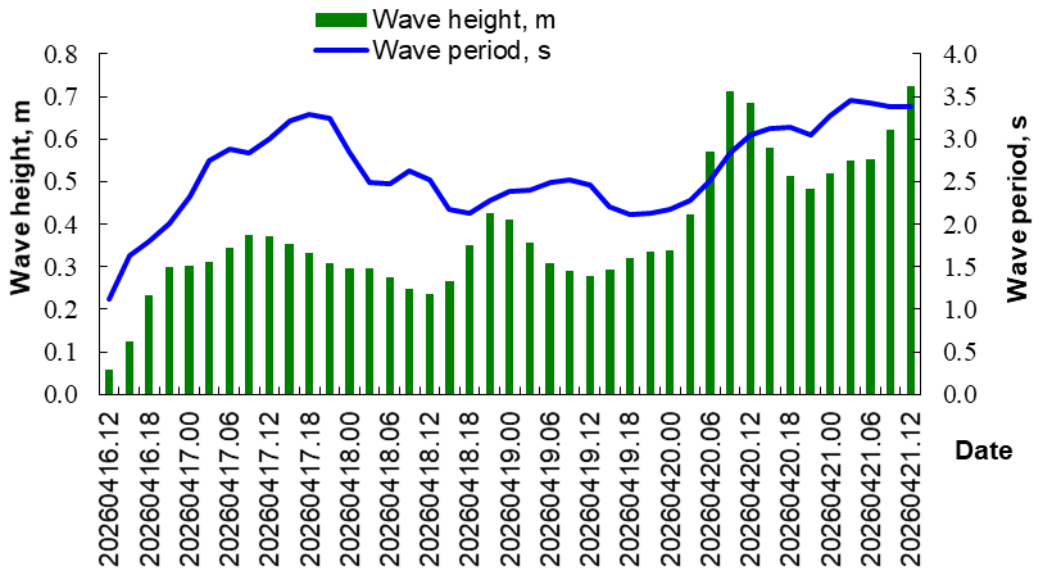


Date time	Aktau				
	Wave height, m	Направление волны, румб	Wave height, m	Скорость ветра, м/с	Wave height, m
20260416.12	0.24	S	1.9	1	W
20260416.15	0.30	S	2.2	4	S
20260416.18	0.34	SW	2.2	6	SE
20260416.21	0.37	W	2.4	4	SE
20260417.00	0.38	W	2.6	1	E
20260417.03	0.38	W	3.0	1	NE
20260417.06	0.39	W	3.3	1	W
20260417.09	0.40	W	3.5	1	SE
20260417.12	0.41	W	3.1	3	SE
20260417.15	0.43	W	2.8	2	SE
20260417.18	0.39	W	2.8	2	NE
20260417.21	0.34	W	2.9	1	E
20260418.00	0.30	NW	3.0	2	S
20260418.03	0.26	NW	3.0	2	E
20260418.06	0.24	NW	2.9	2	NE
20260418.09	0.22	N	2.8	2	NE
20260418.12	0.22	N	2.5	3	NE
20260418.15	0.23	N	2.2	4	W
20260418.18	0.28	NE	2.1	5	NW
20260418.21	0.35	E	2.3	4	NW
20260419.00	0.35	E	2.5	4	SW
20260419.03	0.33	E	2.6	4	E
20260419.06	0.32	NE	2.6	6	SE
20260419.09	0.34	NE	2.5	4	S
20260419.12	0.32	NE	2.6	2	NW
20260419.15	0.30	NE	2.6	4	NW
20260419.18	0.30	NE	2.4	1	NW
20260419.21	0.33	E	2.3	2	SW
20260420.00	0.34	N	2.3	7	SE
20260420.03	0.40	NW	2.3	6	SE
20260420.06	0.48	NW	2.5	6	SE
20260420.09	0.60	N	2.8	7	S
20260420.12	0.64	N	3.2	7	NW
20260420.15	0.60	N	3.2	6	NW
20260420.18	0.57	NE	3.1	5	NW
20260420.21	0.61	E	3.0	5	N
20260421.00	0.61	NE	3.2	7	SE
20260421.03	0.58	N	3.3	6	SE
20260421.06	0.61	N	3.3	4	SE
20260421.09	0.69	NW	3.5	2	S
20260421.12	0.68	NW	3.6	6	NW

Wind condition in the Peschanyi

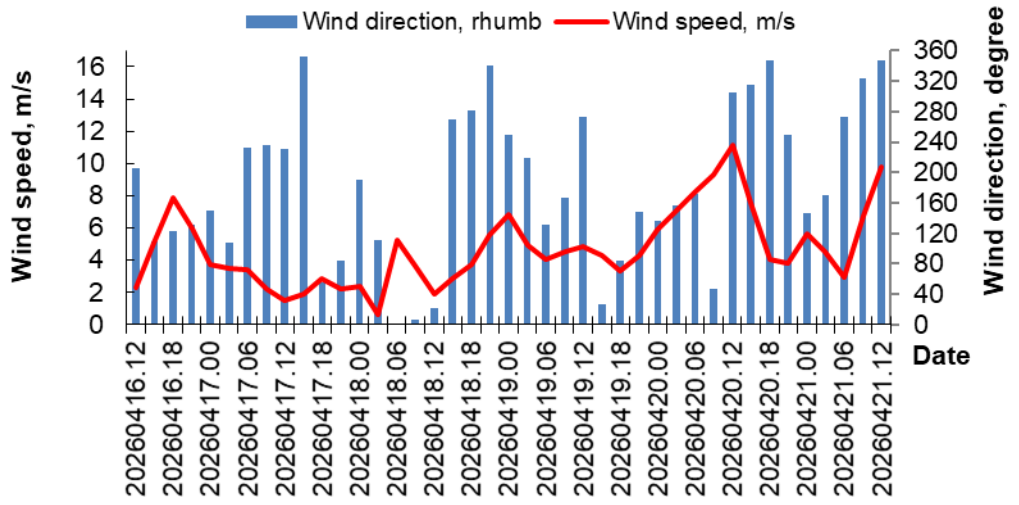


Wave condition in the Peschanyi

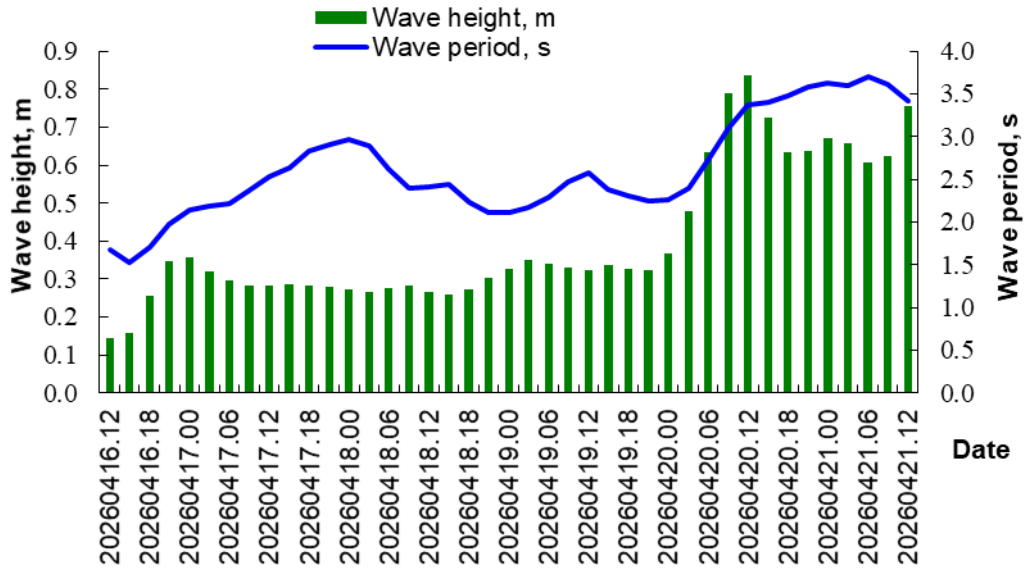


Date time	Peschanyi (Isan)				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20260416.12	0.06	S	1.1	1	W
20260416.15	0.12	SW	1.6	4	S
20260416.18	0.23	SW	1.8	6	S
20260416.21	0.30	SW	2.0	4	E
20260417.00	0.30	SW	2.3	1	E
20260417.03	0.31	W	2.8	2	NW
20260417.06	0.34	W	2.9	5	NW
20260417.09	0.38	W	2.8	3	NW
20260417.12	0.37	W	3.0	1	SW
20260417.15	0.35	W	3.2	1	S
20260417.18	0.33	NW	3.3	1	SE
20260417.21	0.31	NW	3.2	2	SW
20260418.00	0.30	NW	2.9	4	SW
20260418.03	0.30	W	2.5	3	W
20260418.06	0.27	NW	2.5	3	N
20260418.09	0.25	NW	2.6	3	NE
20260418.12	0.24	N	2.5	3	NE
20260418.15	0.27	NE	2.2	5	N
20260418.18	0.35	NE	2.1	6	W
20260418.21	0.43	E	2.3	7	NW
20260419.00	0.41	E	2.4	7	SW
20260419.03	0.36	SE	2.4	6	SW
20260419.06	0.31	SE	2.5	5	SE
20260419.09	0.29	NE	2.5	5	E
20260419.12	0.28	NE	2.5	5	W
20260419.15	0.29	E	2.2	5	N
20260419.18	0.32	NE	2.1	4	NE
20260419.21	0.34	NE	2.1	3	S
20260420.00	0.34	N	2.2	6	SE
20260420.03	0.42	N	2.3	8	SE
20260420.06	0.57	N	2.5	9	S
20260420.09	0.71	N	2.8	9	E
20260420.12	0.68	N	3.0	8	NW
20260420.15	0.58	N	3.1	7	NW
20260420.18	0.51	NE	3.1	5	N
20260420.21	0.48	NE	3.0	2	NW
20260421.00	0.52	N	3.3	4	SE
20260421.03	0.55	N	3.5	5	SE
20260421.06	0.55	N	3.4	4	SE
20260421.09	0.62	NW	3.4	6	SW
20260421.12	0.73	W	3.4	8	W

Wind condition in the Fetisovo

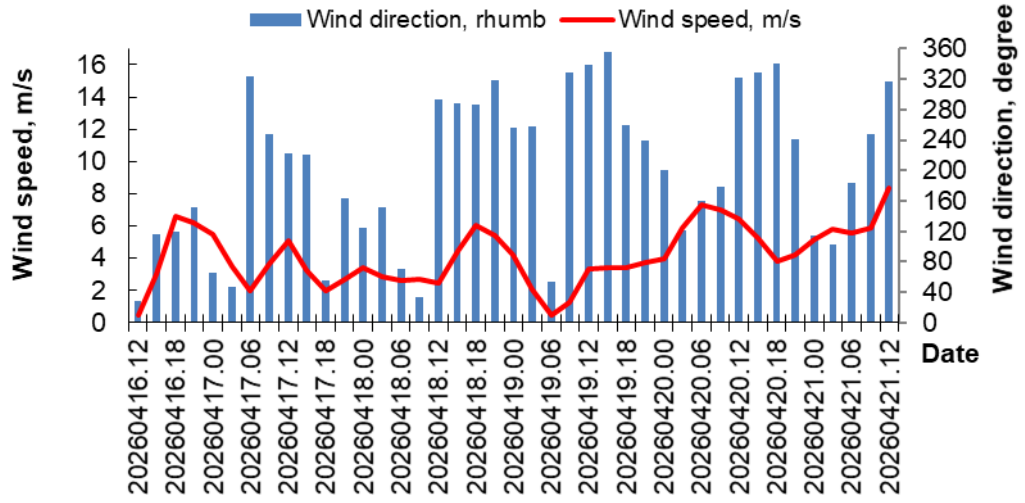


Wave condition in the Fetisovo

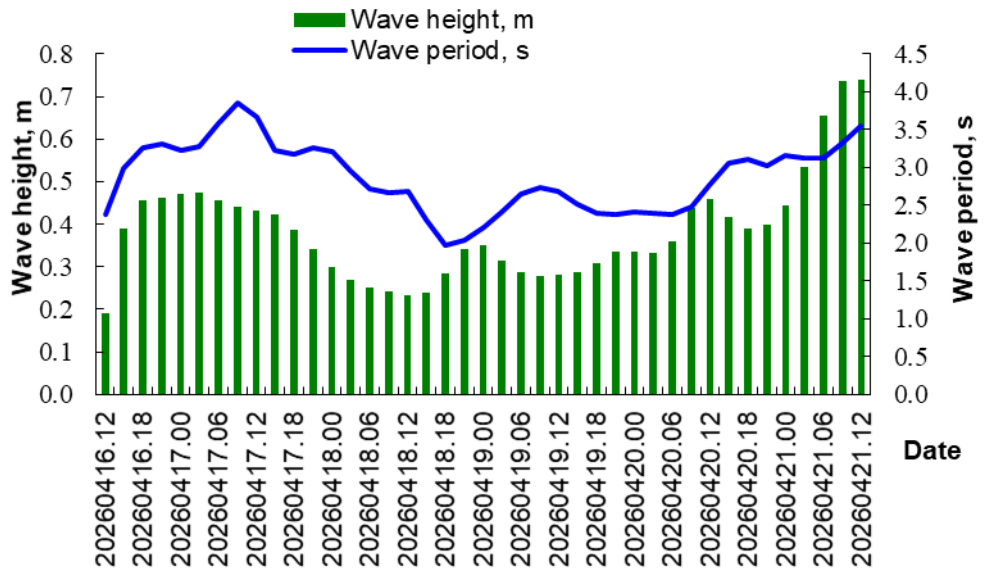


Date time	Fetisovo				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20260416.12	0.14	W	1.7	2	SW
20260416.15	0.16	W	1.5	5	E
20260416.18	0.25	W	1.7	8	SE
20260416.21	0.35	NW	2.0	6	SE
20260417.00	0.36	NW	2.1	4	SE
20260417.03	0.32	NW	2.2	3	E
20260417.06	0.30	W	2.2	3	SW
20260417.09	0.28	W	2.4	2	SW
20260417.12	0.28	NW	2.5	2	SW
20260417.15	0.29	NW	2.6	2	N
20260417.18	0.28	N	2.8	3	NE
20260417.21	0.28	N	2.9	2	E
20260418.00	0.27	N	3.0	2	S
20260418.03	0.27	N	2.9	1	E
20260418.06	0.28	N	2.6	5	N
20260418.09	0.28	N	2.4	4	N
20260418.12	0.27	NE	2.4	2	N
20260418.15	0.26	NE	2.4	3	W
20260418.18	0.27	NE	2.2	4	W
20260418.21	0.30	NE	2.1	6	N
20260419.00	0.33	E	2.1	7	W
20260419.03	0.35	SE	2.2	5	SW
20260419.06	0.34	SE	2.3	4	SE
20260419.09	0.33	N	2.5	5	S
20260419.12	0.32	NE	2.6	5	W
20260419.15	0.34	NE	2.4	4	NE
20260419.18	0.33	NE	2.3	3	E
20260419.21	0.32	N	2.2	4	SE
20260420.00	0.37	N	2.3	6	SE
20260420.03	0.48	N	2.4	7	SE
20260420.06	0.63	N	2.7	8	S
20260420.09	0.79	N	3.1	9	NE
20260420.12	0.84	N	3.4	11	NW
20260420.15	0.72	NE	3.4	8	NW
20260420.18	0.64	NE	3.5	4	N
20260420.21	0.64	E	3.6	4	W
20260421.00	0.67	NE	3.6	6	SE
20260421.03	0.66	N	3.6	5	S
20260421.06	0.61	N	3.7	3	W
20260421.09	0.62	N	3.6	7	NW
20260421.12	0.76	SE	3.4	10	N

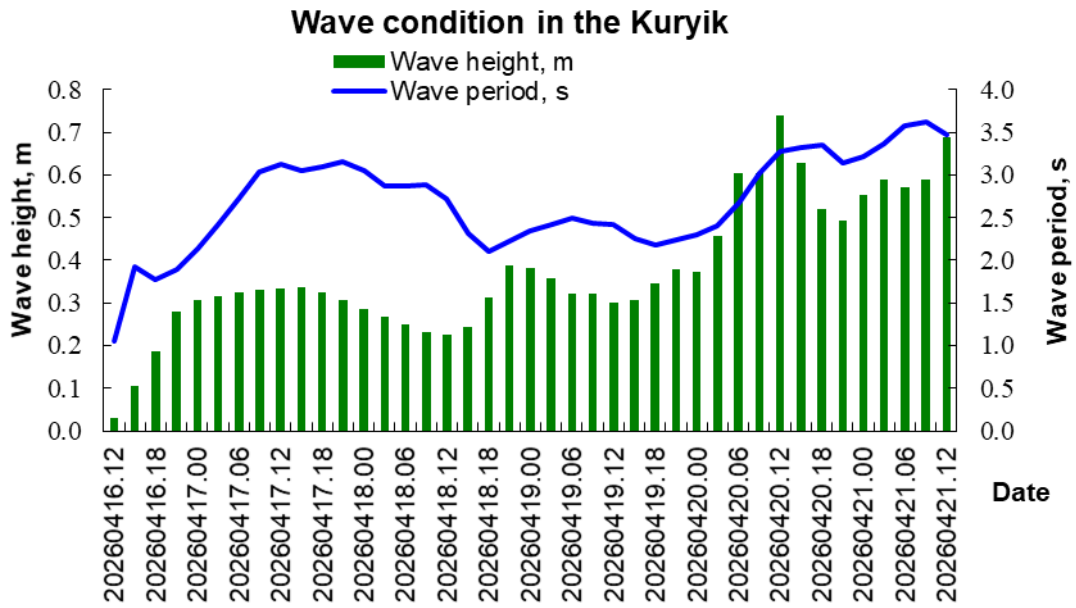
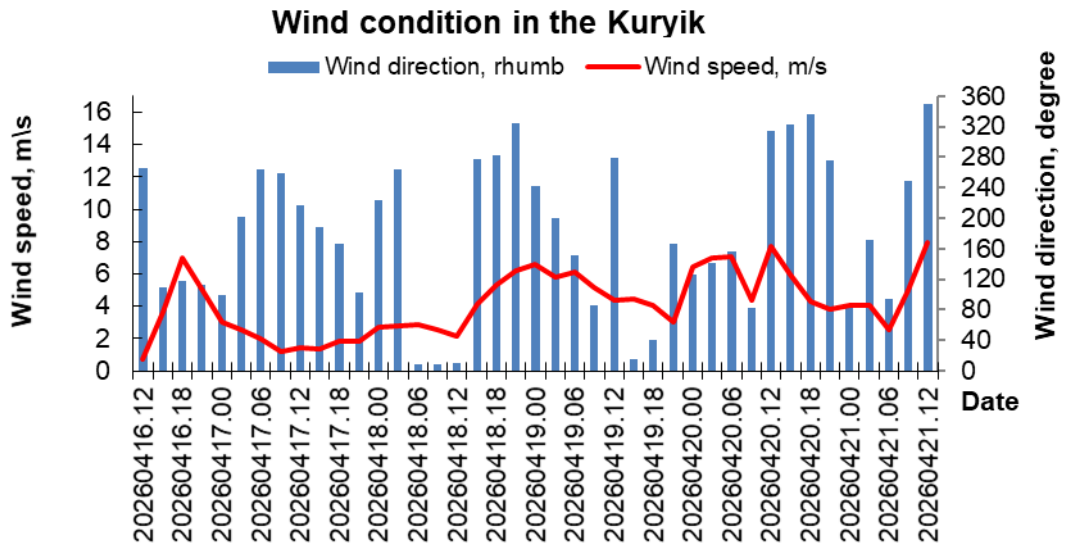
Wind condition in the Saura



Wave condition in the Saura



Date time	Saura				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20260416.12	0.19	SE	2.4	0	NE
20260416.15	0.39	SE	3.0	3	SE
20260416.18	0.45	S	3.3	7	SE
20260416.21	0.46	S	3.3	6	SE
20260417.00	0.47	S	3.2	5	NE
20260417.03	0.47	SW	3.3	4	NE
20260417.06	0.46	SW	3.6	2	NW
20260417.09	0.44	S	3.9	4	W
20260417.12	0.43	S	3.7	5	SW
20260417.15	0.42	S	3.2	3	SW
20260417.18	0.39	S	3.2	2	NE
20260417.21	0.34	S	3.3	3	S
20260418.00	0.30	S	3.2	3	SE
20260418.03	0.27	S	3.0	3	SE
20260418.06	0.25	N	2.7	3	E
20260418.09	0.24	N	2.7	3	NE
20260418.12	0.23	N	2.7	2	NW
20260418.15	0.24	NE	2.3	4	W
20260418.18	0.28	NE	2.0	6	W
20260418.21	0.34	E	2.0	5	NW
20260419.00	0.35	E	2.2	4	W
20260419.03	0.31	E	2.4	2	W
20260419.06	0.29	E	2.7	0	NE
20260419.09	0.28	E	2.7	1	NW
20260419.12	0.28	NE	2.7	3	N
20260419.15	0.29	E	2.5	3	N
20260419.18	0.31	E	2.4	3	W
20260419.21	0.33	SE	2.4	4	SW
20260420.00	0.34	SE	2.4	4	S
20260420.03	0.33	S	2.4	6	SE
20260420.06	0.36	W	2.4	7	S
20260420.09	0.44	N	2.5	7	S
20260420.12	0.46	N	2.8	6	NW
20260420.15	0.42	N	3.1	5	NW
20260420.18	0.39	NE	3.1	4	N
20260420.21	0.40	NE	3.0	4	SW
20260421.00	0.44	E	3.2	5	SE
20260421.03	0.54	N	3.1	6	E
20260421.06	0.66	NW	3.1	6	S
20260421.09	0.74	NW	3.3	6	W
20260421.12	0.74	NW	3.5	8	NW



Date time	Kuryk				
	Wave height, m	Wave direction, rhumb	Wave period, s	Wind speed, m/s	Wind direction, rhumb
20260416.12	0.03	S	1.1	1	W
20260416.15	0.10	SW	1.9	4	E
20260416.18	0.19	SW	1.8	7	SE
20260416.21	0.28	W	1.9	5	SE
20260417.00	0.31	W	2.1	3	E
20260417.03	0.32	W	2.4	3	S
20260417.06	0.32	W	2.7	2	W
20260417.09	0.33	W	3.0	1	W
20260417.12	0.33	W	3.1	1	SW
20260417.15	0.34	NW	3.1	1	S
20260417.18	0.33	NW	3.1	2	S
20260417.21	0.31	NW	3.2	2	E
20260418.00	0.29	NW	3.1	3	SW
20260418.03	0.27	NW	2.9	3	W
20260418.06	0.25	NW	2.9	3	N
20260418.09	0.23	N	2.9	3	N
20260418.12	0.23	N	2.7	2	N
20260418.15	0.24	NE	2.3	4	W
20260418.18	0.31	NE	2.1	5	W
20260418.21	0.39	E	2.2	6	NW
20260419.00	0.38	E	2.3	7	SW
20260419.03	0.36	SE	2.4	6	S
20260419.06	0.32	E	2.5	6	SE
20260419.09	0.32	NE	2.4	5	E
20260419.12	0.30	NE	2.4	4	W
20260419.15	0.31	NE	2.3	4	N
20260419.18	0.35	NE	2.2	4	NE
20260419.21	0.38	NE	2.2	3	S
20260420.00	0.37	N	2.3	6	SE
20260420.03	0.46	N	2.4	7	SE
20260420.06	0.60	N	2.7	7	SE
20260420.09	0.60	N	3.0	4	E
20260420.12	0.74	N	3.3	8	NW
20260420.15	0.63	N	3.3	6	NW
20260420.18	0.52	N	3.3	4	NW
20260420.21	0.49	NE	3.1	4	W
20260421.00	0.55	NE	3.2	4	E
20260421.03	0.59	N	3.4	4	S
20260421.06	0.57	N	3.6	3	E
20260421.09	0.59	N	3.6	5	W
20260421.12	0.69	W	3.5	8	N

**Calculation characteristics were obtained using the SWAN wave model, adapted in RSE «Kazhydromet» to the conditions of the Caspian Sea.*

Compiled by: Bazarbay L.B.

Checked by: Kurmangalieva A.K.

RSE «Kazhydromet» – Caspian Sea Hydrometeorological Research Department

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